

The present application is filed under 35 U.S.C. 371, and is the U.S. national phase application of PCT/KR99/00555, filed on September 15, 1999.--

**IN THE CLAIMS:**

Please amend claims 10-11 as follows:

10. (Amended) A method for preparing the detoxified and immunologically active protein of claim 1 which comprises the steps of culturing a culture of recombinant microorganism transformed with an expression vector comprising a DNA encoding the protein and isolating the protein from the culture.

11. (Amended) The method according to claim 10, wherein the recombinant microorganism is *Escherichia coli* Top10F'-pBlueKS-/LTS63Y(KCTC 0648BP) or *Escherichia coli* Top10F'-pBlueKS-/LTΔ110/112(KCTC 0649BP).

Please also add new claims 14-20.

14. (New) The protein of claim 1, wherein serine residue at position 63 is substituted with tyrosine.

15. (New) A nucleic acid encoding the protein of claim 14.

16. (New) A vector comprising the nucleic acid of claim 15.

17. (New) A host cell transformed with the vector of claim 16.

18. (New) The protein of claim 1, wherein glutamic acid residues at positions 110 and 112 are deleted.

19. (New) A nucleic acid encoding the protein of claim 18.

20. (New) A vector comprising the nucleic acid of claim 19.

**REMARKS**

Claims 1-20 are pending in the application. The amendment to the specification merely inserts a cross reference to other applications. The amendments to claims the claims serve to further clarify the claimed invention. Bases for the newly added claims 14 to 20 can be found throughout the application at, *inter alia*, page 4 in the specification. Accordingly, no new matter has been inserted into the application.

**Submission of Substitute Sequence Listing**

Enclosed herewith in full compliance with 37 C.F.R. 1.821-1.825 is a Substitute Sequence Listing to be inserted into the specification as indicated above. The Substitute Sequence Listing contains further details about the numbering of certain amino acid residues in SEQ ID NOS: 3 and 5 to account for the signal sequence. The Substitute Sequence Listing in no way introduces new matter into the specification.

Also submitted herewith in full compliance with 37 C.F.R. 1.821-1.825 is a disk copy of the Substitute Sequence Listing. Applicant's undersigned representative hereby states that the information recorded in computer readable form is identical to the written sequence listing.